

The Handbook of Science and Technology Studies

Third Edition

Edited by

Edward J. Hackett

Olga Amsterdamska

Michael Lynch

Judy Wajcman

Published in cooperation with the Society for Social Studies of Science

**The MIT Press
Cambridge, Massachusetts
London, England**

Contents

Preface xi

Acknowledgments xiii

Introduction 1

Edward J. Hackett, Olga Amsterdamska, Michael Lynch, and Judy Wajcman

I Ideas and Perspectives 9

Michael Lynch

1 Science and Technology Studies and an Engaged Program 13

Sergio Sismondo

2 The Social Study of Science before Kuhn 33

Stephen Turner

3 Political Theory in Science and Technology Studies 63

Charles Thorpe

4 A Textbook Case Revisited—Knowledge as a Mode of Existence 83

Bruno Latour

5 The Social Worlds Framework: A Theory/Methods Package 113

Adele E. Clarke and Susan Leigh Star

6 Feminist STS and the Sciences of the Artificial 139

Lucy Suchman

7 Technological Determinism Is Dead; Long Live Technological Determinism 165

Sally Wyatt

8 Pramodya's Chickens: Postcolonial Studies of Technoscience 181

Warwick Anderson and Vincanne Adams

- II Practices, People, and Places 205**
Olga Amsterdamska
- 9 Argumentation in Science: The Cross-Fertilization of Argumentation Theory and Science Studies 211**
William Keith and William Rehg
- 10 STS and Social Epistemology of Science 241**
Miriam Solomon
- 11 Cognitive Studies of Science and Technology 259**
Ronald N. Giere
- 12 Give Me a Laboratory and I Will Raise a Discipline: The Past, Present, and Future Politics of Laboratory Studies in STS 279**
Park Doing
- 13 Social Studies of Scientific Imaging and Visualization 297**
Regula Valérie Burri and Joseph Dumit
- 14 Messy Shapes of Knowledge—STS Explores Informatization, New Media, and Academic Work 319**
The Virtual Knowledge Studio: Paul Wouters, Katie Vann, Andrea Scharnhorst, Matt Ratto, Iina Hellsten, Jenny Fry, and Anne Beaulieu
- 15 Sites of Scientific Practice: The Enduring Importance of Place 353**
Christopher R. Henke and Thomas F. Gieryn
- 16 Scientific Training and the Creation of Scientific Knowledge 377**
Cyrus C. M. Mody and David Kaiser
- 17 The Coming Gender Revolution in Science 403**
Henry Etzkowitz, Stefan Fuchs, Namrata Gupta, Carol Kemelgor, and Marina Ranga
- III Politics and Publics 429**
Edward J. Hackett
- 18 Science and the Modern World 433**
Steven Shapin
- 19 Science and Public Participation 449**
Massimiano Bucchi and Federico Neresini

- 20 Science, Technology, and Social Movements 473**
David Hess, Steve Breyman, Nancy Campbell, and Brian Martin
- 21 Patient Groups and Health Movements 499**
Steven Epstein
- 22 User-Technology Relationships: Some Recent Developments 541**
Nelly Oudshoorn and Trevor Pinch
- 23 STS and Ethics: Implications for Engineering Ethics 567**
Deborah G. Johnson and Jameson M. Wetmore
- 24 STS Perspectives on Scientific Governance 583**
Alan Irwin
- 25 Expertise: From Attribute to Attribution and Back Again? 609**
Robert Evans and Harry Collins
- IV Institutions and Economics 631**
Olga Amsterdamska
- 26 The Commercialization of Science and the Response of STS 635**
Philip Mirowski and Esther-Mirjam Sent
- 27 Organizational Contexts of Science: Boundaries and Relationships between University and Industry 691**
Jennifer L. Croissant and Laurel Smith-Doerr
- 28 Science, Technology, and the Military: Priorities, Preoccupations, and Possibilities 719**
Brian Rappert, Brian Balmer, and John Stone
- 29 The Right Patients for the Drug: Pharmaceutical Circuits and the Codification of Illness 741**
Andrew Lakoff
- 30 Making Order: Law and Science in Action 761**
Sheila Jasanoff
- 31 Knowledge and Development 787**
Susan E. Cozzens, Sonia Gatchair, Kyung-Sup Kim, Gonzalo Ordóñez, and Anupit Supnithadnaporn

- V Emergent Technosciences 813**
Judy Wajcman
- 32 Genomics, STS, and the Making of Sociotechnical Futures 817**
Adam M. Hedgecoe and Paul A. Martin
- 33 Emerging Medical Technologies 841**
Linda F. Hogle
- 34 Biomedical Technologies, Cultural Horizons, and Contested Boundaries 875**
Margaret Lock
- 35 STS and Social Studies of Finance 901**
Alex Preda
- 36 Nature and the Environment in Science and Technology Studies 921**
Steven Yearley
- 37 Bridging STS and Communication Studies: Scholarship on Media and Information Technologies 949**
Pablo Boczowski and Leah A. Lievrouw
- 38 Anticipatory Governance of Nanotechnology: Foresight, Engagement, and Integration 979**
Daniel Barben, Erik Fisher, Cynthia Selin, and David H. Guston
- List of Contributors 1001
Name Index 1015
Subject Index 1047